Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Petition of Verizon New England for Forbearance Pursuant to 47 U.S.C. § 160(c) in Rhode Island;	)	WC Docket No. 08-24
	)	
Petition of the Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. § 160(c) in Cox's Service Territory in the Virginia Beach Metropolitan Statistical Area	)	WC Docket No. 08-49

DECLARATION OF DR. MICHAEL D. PELCOVITS

1. INTRODUCTION

I have been asked by Cavalier Telephone Corporation ("Cavalier") to provide an economic analysis of several of the key policy issues raised by the forbearance petition submitted by the Verizon Telephone Companies ("Verizon") for the Cox service area of the Virginia Beach MSA. Specifically, I have been asked to provide an analysis of whether the dominant carrier regulations and Section 251(c)(3) UNE obligations that apply to Verizon's loop and transport unbundled elements should be removed in the Cox service area of the Virginia Beach MSA. My analysis will focus on the residential and small business markets that would be affected by deregulation of Verizon's obligation to provide voice-grade "DS0" loops and related elements. Because these issues are also raised in Verizon's petition for forbearance in Rhode Island, and the Commission's resolution of the Rhode Island petition will likely have a significant impact on resolution

of the Virginia Beach petition, I am also submitting my declaration in the Rhode Island proceeding.

In preparing this analysis I have reviewed Verizon's Virginia Beach petition and supporting exhibits, comments filed by Cavalier and other parties, and Verizon's reply comments in that proceeding. In addition, I have become familiar with Cavalier's business operations in the Virginia Beach MSA. I have also reviewed recent studies concerning the substitutability of wireless for wireline services.

This declaration is organized as follows. Following this introduction I will present a review of my professional qualifications. Then in Section III, I will explain how I approached the issue of forbearance from an economic vantage point. In Section IV, I address the issue of the defining the market to analyze competition issues. In the following section, I address one of the most critical issues confronting the Commission in this forbearance case (and undoubtedly in many others to follow) -- namely, whether wireless services constitute an effective competitive constraint on wireline services. In the final section, I explain how the Commission's decisions on forbearance for voice services and broadband services are inextricably interrelated.

2. QUALIFICATIONS

My name is Michael D. Pelcovits. I am a principal with the consulting firm Microeconomics and Research Associates, Inc. ("MiCRA"). I received my Ph.D. in Economics from the Massachusetts Institute of Technology in 1976. Since serving on the economics faculty of the University of Maryland and as a Senior Economist at the Civil Aeronautics Board, I have spent my entire career specializing in the economics of regulation and competition in the telecommunications industry.

From 1979 to 1981, I was a Senior Economist at the Federal Communications Commission, Office of Plans and Policy. From 1981 to 1988, I was a founding member and principal of the consulting firm Cornell, Pelcovits and Brenner. In 1988 I joined MCI Communications Corporation and remained with the Company following its merger with WorldCom, until 2002. I held positions of increased responsibility at MCI, and was appointed Vice President and Chief Economist of the corporation. In this position I was responsible for the economic analyses of policy and regulatory matters provided and presented by the Corporation before federal, state, foreign, and international government agencies, legislative bodies and courts.

I joined MiCRA in October 2002, immediately after leaving MCI, and am one of six principals of the firm. MiCRA is an economic consulting firm based in Washington, DC. The firm was founded in 1991 by a group of economists who served in senior positions at the Antitrust Division of the U.S. Department of Justice. MiCRA provides economic analysis, expert testimony, and economic research to clients in a wide range of antitrust, regulatory, and other legal and public policy settings. Since joining MiCRA, I have testified before several state regulatory commissions on telecommunications policy and ratemaking issues. These testimonies have focused on the importance of establishing the proper foundation to facilitate competition in telecommunications markets. I have also filed several declarations before the Federal Communications Commission on a wide range of common carrier, wireless, and international telecommunications policy issues. I have also consulted and provided testimony on telecommunications, intellectual property and competition matters before several other Courts and administrative bodies, including: Federal District Court; U.S. Copyright Royalty Judges; and London Court of

International Arbitration. My curriculum vita, which is appended as Attachment MDP-1 to this testimony, provides more detail concerning my qualifications and experience.

3. ECONOMIC FRAMEWORK FOR ANALYZING FORBEARANCE

The Commission is required to forbear from any statutory provision or regulation if it determines that: (1) enforcement of the regulation is not necessary to ensure that the telecommunications carrier's charges, practices, classifications, or regulations are just, reasonable, and not unjustly or unreasonably discriminatory; (2) enforcement of the regulation is not necessary to protect consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest. As the Commission explained in its prior decision denying forbearance to Verizon in the Virginia Beach MSA (along with other geographic areas), "[f]orbearance is warranted under section 10(a) only if all three elements of the forbearance criteria are satisfied."[1] In that decision, the Commission approached the forbearance issue by first identifying the relevant markets affected by regulation of Verizon and then analyzed the state of competition in these markets.

The plain reading of the statute and Commission precedent appear, in my opinion, to dictate a standard competition analysis -- similar to the efforts undertaken by the antitrust agencies, by regulatory agencies, and by the Commission itself in many other contexts. The economic issue is whether actual and potential competition is sufficient -- in the absence of regulation -- to constrain the regulated firm and prevent it from setting excessive prices or setting other conditions that would harm consumers.

[1] *In the Matter of Petitions of the Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Boston, New York, Philadelphia, Pittsburgh, Providence and Virginia Beach Metropolitan Statistical Areas*, WC Docket No. 06-172, Memorandum Opinion and Order, 22 FCC Rcd 21293, ¶ 20 (2007) ("*Six MSA Forbearance Order*").

4. MARKET DEFINITION

Concept of Market Definition

Competition analysis must be conducted for a well-defined market, both from a product and geographic standpoint. As explained by the Department of Justice and Federal Trade Commission in the Merger Guidelines, the analytical process in evaluating the likely competitive impact of a merger must be within the context of "economically meaning markets, i.e., markets that could be subject to the exercise of market power."[2]

Market definition focuses solely on demand substitution factors -- i.e. possible consumer responses. According the Merger Guidelines, "[a] market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a 'small but significant and nontransitory' increase in price..."[3] This is often referred to as the "SSNIP" test.

The determination of a product market typically centers on analysis of evidence of consumers' willingness to substitute among different products in response to price changes. Geographic market definition requires an analysis of the willingness of consumers to purchase products sold in different locations, e.g. shopping patterns for retail purchases.

[2] U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines* § 1.0 (rev. ed. 1997), *available at* http://www.usdoj.gov/atr/public/guidelines/horiz_book/10.html.
[3] *Id.*

Market Definition Applicable to the Verizon Forbearance Petition

It is possible to approach the markets affected by Verizon's Virginia Beach petition from a number of vantage points. From a strict geographic standpoint, virtually every customer constitutes a separate market, since no one will be willing to go next door to use the telephone or surf the Internet, in response to a "small but significant nontransitory" increase in prices. The Commission, however, has recognized the impracticality of using individual customers as the geographic market and has looked at larger areas. Moreover, in determining what area is appropriate, the Commission should consider the supply-side implications of how its decision concerning one geographic area will affect competition in nearby areas. Entry and sustainability of competition in local markets will depend on profit opportunities in much larger geographic areas than a single wire center serving area.

My analysis is focused on the voice and broadband services provided to residential and small business customers in the Virginia Beach MSA. I will not attempt to distinguish between residential and small business customers or across geographic areas, because the issues that I am addressing are significant for large numbers of customers in all of these geographic and product markets. In particular, I will attempt to answer the question of whether wireless services would constrain a hypothetical wireline monopolist in the voice and data markets for these customers. (This is analytically similar to the question in a merger context as to whether wireless and wireline services belong in the same antitrust market.) Although there may be important difference between residential and small business customers as well as across geographic markets, I believe that these are not central to the analysis of wireline/wireless substitutability.

Market definition must also be handled carefully in this proceeding, however, in relationship to the analysis of voice and data services. Most consumers of wireline voice and data services purchase these services from a single vendor, which supplies the services on the same wireline facility. Does this mean that the two services are in the same market? From the standpoint of demand substitution (at least for most consumers) they would not be in the same market. Nevertheless, complementarities on the production and consumption side of these markets must enter into the Commission's analysis.

5. WIRELESS-WIRELINE SUBSTITUTION

Verizon's claim that there is "extensive competition for telecommunications services in Cox's service territory"[4] in the Virginia Beach MSA rests on the inclusion of wireless, VoIP, and CLECs among the alternatives available to consumers in the relevant market. Although Verizon states correctly that Cox is the most important competitor in the market, it undoubtedly recognizes that unless it can add other carriers to the voice and data markets, it will be forced to advocate forbearance in a duopoly market. And it is doubtful that Verizon's petition would be granted if it cannot demonstrate significant competition from wireless service. As Acting Chairman Copps and Commissioner Adelstein have opined in the past, forbearance is inappropriate when the only competition is from cable.[5]

For this reason, I will now address this question directly, and examine whether wireless and wireline service belong in the same antitrust market. I will focus on wireless

[4] Declaration of Quitin Lew, John Wimsatt, and Patrick Garzillo on behalf of Verizon Telephone Companies, ¶ 4.
[5] *Six MSA Forbearance Order*, 22 FCC Rcd at 21326, Statement of Commissioner Michael J. Copps, Concurring; 22 FCC Rcd at 21327, Statement of Commissioner Jonathan S. Adelstein, Concurring.

substitution for wireline voice service. This is the portion of the market where Verizon has attempted to show the greatest substitutability of wireless for wireline service. Following this discussion, I will examine a more ambitious claim that wireless broadband service is competitive with wireline broadband service.

What is a Competitive Constraint?

Wireless voice service substitutes for wireline voice service but not for all purposes or for all users. This is apparent from casual observation as well as from statistics about cord-cutting and usage substitution, especially for long-distance calling. Not surprisingly, Verizon's petition refers extensively to the empirical data that confirms there is some substitutability between wireline and wireless service. But the story does not end here. The existence of some substitutability does not obviate the need to investigate whether a real-world firm (let alone a hypothetical monopolist used in the SSNIP test of market definition) can exercise market power. If it was this simple, then there would be no need for the comprehensive and sophisticated analyses routinely performed by the antitrust agencies in merger reviews or other investigations of monopolization.

A proper analysis of market definition and market power in the Virginia Beach voice market would require statistical analysis of the evidence concerning the *degree* of wireline-wireless substitutability, and the ability of Verizon's to raise and sustain price above competitive levels notwithstanding the presence of competitors – including the wireless industry. The methods used to test the degree of substitutability would include, for example: econometric analysis of the demand for wireline service, including the cross elasticity between wireline and wireless service; and analysis of customer switching

patterns (i.e. diversion) between wireline and wireless in response to changes in the marketplace.

To give an example of how a "proper" analysis is done, I would point to the Federal Trade Commission's investigations of two mergers in the retail industry. The first merger was between Staples and Office Depot; the second was between May Department Stores and Federated Department Stores. Both cases required the FTC to determine whether other retail establishments exerted a sufficient constraint on the pricing of the merging firms, and in particular whether the market should be defined narrowly or broadly.[6] In the Staples-Office Depot case, the FTC concluded that office supply superstores were not constrained sufficiently by competition from other retail vendors of office supplies, e.g. Walmart. In the Federated-May case, the FTC concluded that other retail stores, e.g. the Gap, constrained the pricing of the conventional department stores. These decisions were based on econometric analysis of pricing practices in the markets affected by the proposed mergers. The FTC did not rely on general statements or broad brush observations about the markets in order to determine whether two somewhat-substitutable retail establishments were close enough substitutes to constrain an exercise of market power. Nor did they simply count the number of customers that currently shop exclusively at one establishment instead of the other.

Verizon could undertake rigorous statistical analysis of wireline-wireless substitutability, but has not produced such evidence along with this Petition.[7] This is

[6] Aileen Thompson, *Merger Analysis at the Federal Trade Commission: Two Recent Retail Cases*, www.ftc.gov/be/thompsmerg.pdf.

[7] Verizon cites to "statistical evidence" that "wireless puts competitive pressure on wireline pricing." (Declaration of Lew, Wimsatt, and Garzillo, ¶27). This evidence consists of a 2004 paper from the Competitive Enterprise Institute, which purported to demonstrate a cross-elasticity of demand of nearly 2 between wireline prices and wireless demand. This result, which is based on data between 1984 and 2003, is simply not credible. The use of data from this long period of time is very odd, and hard to square with

particularly troubling because Verizon would have access to the valuable data necessary to perform regression or diversion analysis. In particular, the key empirical test is *how much switching* between wireline and wireless access is due to changes in the relative prices (i.e. the cross-elasticity of demand). If the customers switch between wireline and wireless access but *not* in response to price changes, then wireless is not a close substitute and cannot prevent the exercise of market power in the wireline market.

Porting Activity Shows Little Diversion from Wireline to Wireless

With regard to customer switching behavior, it is noteworthy that few customers that "cut the cord" port their wireline number to a new wireless service. Recently-released data on number porting show that only 27,000 numbers have been ported between wireline and wireless carriers in Virginia.[8] By comparison, 1.5 million numbers have been ported among wireline carriers and 915,000 among wireless carriers in Virginia.[9] This should cast doubt on 'Verizon's hypothesis that there would be widespread further cord cutting and conversion of wireline service to wireless service in response to a small increase in the price of wireline service.

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the claim that the market has changed dramatically in the last couple years. From an econometric standpoint, the "finding" of an absurdly high cross-elasticity appears to reflect a simple correlation between wireless demand and increases in wireline prices. In other words, while it is true that wireless subscription has grown enormously during this twenty year period, and it is also true that some indices of wireline prices have also increased during this period, this is not a proof of causation. Over the same period of time, many other factors changed as well. For example, commutes increased, the service economy grew, and wireless signal quality improved. Yet these trends are far from a complete (or statistically significant) explanation of the increase in wireless subscription. And any econometric analysis that fails to capture causation (or adjust for other trends in the market) will produce spurious and even nonsensical results.

[8] Craig Stroup & John Vu, Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission, *Numbering Resource Utilization in the United States: NRUF data as of June 30, 2008*, Table 17 (2009).

[9] *Id.*

The data for Virginia is mirrored in nationwide data, where the total number of ports from wireline to wireless carriers is reported to be 2.2 million.[10] This is a very small percentage of the 20 million households that have cut the cord in the last several years.[11] Cavalier's experience mirrors these larger trends, revealing that less than **[Begin Confidential] [End Confidential]** of former Cavalier customers chose to port their landline number to a wireless (or even a VoIP provider).[12]

There are a number of possible explanations of this phenomenon of low levels of porting activity from wireline to wireless. Certainly many categories of cord cutters, such as younger consumers or unrelated adults living together, may never have had a wireline phone. Other cord cutters may start with a wireline and wireless phone and then cut the cord on the wireline phone keeping his or her wireless phone and the associated number. Nevertheless, the data does suggest that few established households (e.g. homeowners with children living at home) cut the cord on the family's wireline phone and substitute a wireless phone to provide the same functionality. This would imply that a significant portion of the wireline customers have not been and would not be very sensitive to changes in the relative price of wireline and wireless phone service.

What can we learn from the incidence of cord-cutting?

Results from the National Health Interview Survey (NHIS) Survey showing the number of households with only wireless telephone service are reported on a semi-annual basis by the Center for Disease Control. These surveys are conducted for the purpose of

[10] *Id.* Table 15.
[11] There are approximately 117 million households in the United States. (Census Bureau, Current Population Survey) According to the latest CDC report, 17.5% of households have cut the cord.
[12] Declaration of Sean Wainwright ¶ 9, Exhibit 3 to Cavalier Telephone, LLC's Opposition to Verizon's Petition for Forbearance, WC Docket 08-49 (filed May 13, 2008).

determining possible bias from health surveys that are limited to landline telephones. They are not developed or constructed to analyze competition issues. Nevertheless, the data are the best available information on the number of households or adults that have "cut the cord."

The most recent results, which are from the January-June 2008 NHIS,[13] estimate that 16.1% of adults live in households with only wireless telephone service, compared to 14.5% in the previous survey during the last half of 2007.[14]

Does this data demonstrate that wireless service would constraint non-competitive pricing by Verizon? The simple answer is no. The more complicated answer is that it appears to prove the opposite. Namely, that in spite of significant changes in the marketplace over the last several years (including changes in the relative prices of wireless and wireline), many demographic groups have not cut the cord. This behavior would seem to be inconsistent with large cross-elasticities.

The extent of cord-cutting is closely correlated with certain demographic characteristics. Only 2.8% of adults 65 years and older and 9.2% of adults between the ages of 45 and 64 have cut the cord, compared to 35.7% of 25-29 year olds and 31.4% of 18-24 year olds. Other significant factors include: household structure, with 63.1% cord cutting in households with unrelated adults and no children living together, compared to 12.5% cord cutting in households with children; home ownership status, with 33.6% of renters cutting the cord, compared to 9.0% of homeowners cutting the cord.

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[13] Stephen J. Blumberg & Julian V. Luke, Centers for Disease Control and Prevention, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-June 2008*, (2008) *available at* http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless200812.pdf.

[14] As I will explain below, this is a nationwide estimate that "counts" all survey respondents the same, and is heavily influenced by certain demographic groups, such as students, living in rented housing. Drawing conclusions from a nationwide number is very dangerous, because it ignores the differences between customers based on how they use telephone services. Consequently, this can lead to erroneous conclusions about the ability of Verizon to raise prices to the customers that have not yet cut the cord.

Recently the CDC released state-level estimates from the NHIS survey results from 2007. The results show that the "prevalence of wireless-only households and adults in 2007 varied substantially across states. State-level estimates ranged from 5.1% (Vermont) to 26.2% (Oklahoma) of households and from 4.0% (Delaware) to 25.1% (Oklahoma) of adults."[15] In order to estimate results on a statewide basis, the CDC staff utilized a two-sample modeling strategy based on data from the 2007 NHIS and the 2008 Current Population Survey's Annual and Social Economic Supplement. *The model produced an estimate for Virginia of 10.8% wireless-only households, which is well-below the nationwide figure.*[16] This result is important in its own right for this application. It also undermines further Verizon's attempt to conflate a decrease in the demand for wireline service with a decrease in market power over the remaining customers in that market.

Verizon's recent *ex parte,* which comments on the latest CDC results, attempts to twist the evidence to fit its preconceived theory of wireless substitution.[17] First, Verizon tries to sweep aside the state-level estimates by simply declaring that the national figure is "a reasonable proxy for the level of discipline that wireless imposes on wireline in any given market."[18] Second, it side-steps the evidence of a lower incidence of cord cutting in Virginia by grossing up the actual rate on the grounds that the CDC study's author noted that he expected higher rates of cord cutting by 5% in 2009. Third, Verizon tries to make a silk purse out of the sow's ear by claiming that the "national figure is conservative, because the highest level of substitution already achieved in some states ...

[15] Stephen J. Blumberg et al., Centers for Disease Control and Prevention, *Wireless Substitution: State-level Estimates From the National Health Interview Study, January-December 2007*, No. 14, abstract (2009),.
[16] *Id.* at 5.
[17] Verizon Ex Parte Letter, WC Docket Nos. 08-24, 08-49 (filed April 10, 2009).
[18] *Id.* at 4.

shows the trajectory and level of substitution that is likely to be achieved in other states."[19]

Verizon's misappropriation of the facts should be rejected by the Commission. The evidence of large variations on a state-wide basis is compelling evidence that residential customers are not a monolithic entity that has either cut the cord or is on the verge of slicing off the last vestiges of wireline telephone service. Rather, the complexity of the data points to significant differentiation in consumer demand for wireline and wireless services based on many different factors. Price is only one of these factors, whose importance has not been measured properly.

It is conceivable that even though demographic factors are a very powerful influence on cord-cutting, price is also very important. In order to know this for sure, it would be necessary to conduct econometric studies. Nevertheless it is worth noting that the relative price of wireline and wireless service has varied significantly over the last few years. The ratio of the wireless-CPI (local) to the wireline-CPI has declined by 16% over the last five years.[20] In spite of this price trend as well as significant improvements in the quality of wireless service, the demographic factors suggest a large difference in the willingness of customers to cut the cord in response to price changes. Indeed, it is very likely that the households that remain attached to the cord are less likely in the future to cut the cord in response to "small but significant" changes in the price of wireline service.

The potential that the wireline market has shrunk but demand has become *less elastic* is entirely credible. Other markets have developed along the same lines. For

[19] *Id.*
[20] Bureau of Labor Statistics, Consumer Price Index, 2003-2008, ratio of Series CUUR0000SEED03 to Series CUUR0000SEED01l, annual CPI 2003 to annual CPI 2008.

example, the economics literature has shown that the demand for brand-name pharmaceuticals becomes *less elastic* following the introduction of generic drugs.[21] These markets appear to be differentiated by two types of consumers: those that have a strong demand for the actual or perceived benefits of brand name drugs and those that are price sensitive and willing to switch to generics for a lower price. Entry of generics causes the brand name producers' demand to diminish (geometrically it shifts inward) but becomes less elastic. The brand name drug producer responds to this situation by raising the price of its branded drug – even though "competition" has increased with the introduction of the generic drug.

The parallel in the voice telephony market would be that certain customers have a powerful demand for wireline service, either because of habit, higher-quality, ease-of-use in a large household, dependability to reach first-responders, or other reasons. As more and more customers shift to wireless service and cut the cord, these remaining customers may become even more vulnerable to an exercise of market power. I would like to emphasize that I have not tested this hypothesis, but nevertheless Verizon has not tested its implicit hypothesis that the demand for wireless has shifted inward *and* become more elastic. Moreover, counting the number of customers that have already cut the cord, as Verizon has done, tells us virtually nothing about this demand elasticity. Such information cannot credibly be used to make a decision in this case.

Several of the points that I have raised in this section echo the conclusions of the Department of Justice report summarizing a symposium held on competition in

[21] Richard G. Frank & David S. Salkever G*eneric Entry and the Pricing for Pharmaceuticals*, 6 J. Econ. & Mgmt. Strategy 75 (1997).

telecommunications markets.[22] DOJ concluded that "no evidence was presented at the Symposium that this substitution to date has effectively constrained the prices consumers pay for access to landline telephone service."[23] DOJ further elaborated that "[t]he existence of some consumers who choose to substitute wireless service for access to the landline network does not demonstrate that wireless service is an effective constraint on the prices for access to landline services. That determination turns in part on the number of customers who would choose to substitute to wireless services *entirely in response to* a specified price increase for landline service, compared with the number of customers who would choose to stay with landline and pay the additional price. *The size of that wireless substitution effect is not known*."[24] As I explain above, this remains unknown and a large substitution effect cannot simply be assumed to exist.

Broadband Wireless

Even if Verizon were able to prove that wireless constrains wireline voice pricing, it would face a much tougher burden in trying to prove that wireless broadband service constrains broadband wireline service. The reason is that wireless broadband services are typically more expensive, slower, and less flexible than wireline broadband service. To demonstrate this point, I collected information from the web sites of the broadband wireless service providers in the Virginia Beach Areas. As demonstrated in the table below, the least expensive wireless broadband service provided by a major wireless company cost $39.99 per month, and limits total data usage to 50 MB per month.

[22] U.S. Dep't of Justice, *Voice, Video and Broadband: The Changing Competitive Landscape and Its Impact on Consumers*, (2008), *available at* http://www.usdoj.gov/atr/public/reports/239284.pdf.
[23] *Id.* at 61.
[24] *Id.* at 65 (emphasis added; footnote omitted).

Wireless Broadband Services in VA Beach/Norfolk Area:

Service Name	Monthly Maximum Allowance	Monthly Price	Average Download Speed (in Kbps)	Average Upload Speed (in Kbps)
Verizon Wireless	5 GB	$59.99	600-1400	500-800
Verizon Wireless	50 MB	$39.99	600-1400	500-800
Sprint	5 GB	$59.99	600-1400	350-500
AT&T DataConnect	5 GB	$60.00	600-1400	500-800
Alltel - Internet Anywhere Bundle	None	$69.98	600-1400	500-800
Alltel - Extended Wireless Internet	None	$99.99	600-1400	500-800
Alltel - National Wireless Internet	None	$59.99	600-1400	500-800
nTelos Wireless		$39.99		
T-Mobile webConnect Data Plan	5 GB	$59.99	600-1000	N/A

Speed and Quality Source:
www.mobile-broadband-reviews.com
http://blog.laptopmag.com/hands-on-with-t-mobiles-new-mobile-broadband-usb-dongle

Service Websites:
http://www.verizonwireless.com/b2c/store/controller?item=planFirst&action=viewPlanDetail&sortOption=priceSort&catId=409
http://nextelonline.nextel.com/NASApp/onlinestore/en/Action/DisplayPlans
http://www.wireless.att.com/cell-phone-service/cell-phone-plans/data-connect-plans.jsp
http://nteloswireless.com/mobilebroadband/
http://www.t-mobile.com/shop/plans/cell-phone-plans-detail.aspx?tp=tb1&rateplan=T-Mobile-webConnect-Data

Higher-end wireless broadband offerings cost approximately $60 per month and allow greater data usage; nevertheless the average download and upload speeds are much slower than comparably or lower priced wireline offers. The table below displays some of the popular wireline broadband offerings available in the Virginia Beach MSA, for purposes of comparing them to the wireless offerings.

Wireline Broadband Services Offered in Virginia Beach/Norfolk Area

Company	Service Name	Download Speed	Upload Speed	Minimum Contract Length	Monthly Price
Cox	Premier Internet	20 Mbps	3 Mbps	12 months	$49.95
Cox	Premier Internet	20 Mbps	3 Mbps		$57.95
Cox	Preferred Internet	10 Mbps	2 Mbps	12 months	$39.95
Cox	Preferred Internet	10 Mbps	2 Mbps		$43.95
Cox	Value Internet	1.5 Mbps	256 Kbps	3 months	$17.95
Cox	Economy Internet	768 Kbps	256 Kbps		$19.95
Verizon	Starter Plan	1 Mbps	384 Kbps	12 months	$19.99
Verizon	Power Plan	3 Mbps	768 Kbps	12 months	$29.99
Verizon	Turbo Plan	7.1 Mbps	768 Kbps	12 months	$42.99
Verizon	FiOS Fast	10 Mbps	2 Mbps	12 months	$49.99
Verizon	FiOS Fast	10 Mbps	2 Mbps		$59.99
Verizon	FiOS Faster	20 Mbps	5 Mbps	12 months	$59.99
Verizon	FiOS Faster	20 Mbps	5 Mbps		$69.99
Verizon	FiOS Faster Plus	20 Mbps	20 Mbps	12 months	$69.99
Verizon	FiOS Faster Plus	20 Mbps	20 Mbps		$77.99
Verizon	FiOS Fastest	50 Mbps	20 Mbps	12 months	$144.95
Verizon	FiOS Fastest	50 Mbps	20 Mbps		$164.95
Cavalier	Unlimited High-Speed Internet	8 Mbps			$39.95

Notes:
All Cox plans include 14 GB storage for 7 email accounts, and 70 MB personal WebSpace.
Cox plans do not include a cable modem, which costs $39.95, a network adapter, which costs $39.95, or wireless router, which costs
The Cavalier plan includes 7 GB of storage for 3 email addresses in addition to personal web space.

Sources:
Cox plans available at: http://ww2.cox.com/residential/hamptonroads/internet/pricing.cox
Verizon standard high-speed internet plans available at: http://www22.verizon.com/Residential/HighSpeedInternet/Plans/Plans.htm
Verizon FiOS plans available at: http://www22.verizon.com/Residential/FiOSInternet/Plans/Plans.htm
Cavalier plan available at: http://www.cavtel.com/internet/

Wireless broadband does not substitute for most wireline broadband usage. As explained on company websites and in customer reviews these services are only meant for "basic Internet" service, *not* as a substitute for a wireline broadband connection.[25] Alltel, for instance, states that its wireless broadband service is not meant to replace "server devices or host computer applications, including, without limitation, Web camera posts or broadcasts, continuous jpeg file transfers, automatic data feeds, telemetry applications, automated functions or any other peer-to-peer applications."[26] It goes on to explicitly maintain that its service is not meant "as substitute or backup for private lines

[25] www.mobile-broadband-reviews.com provides information about wireless broadband restrictions on use and a summary of their prices and characteristics.
[26] http://www.alltel.com (last visited April 7, 2009).

or dedicated data connections." Alltel's restrictions are typical of the other wireless broadband providers and underscore the status of wireless broadband service as a complement to, not substitute for, wireline broadband service. In conclusion, there is no basis on which to conclude that wireless broadband service belongs in the same product market as wireline broadband service, and every reason to continue to require Verizon to provide UNE loops to its competitors in the broadband market.[27]

6. CONCLUSION

Verizon has failed to demonstrate that competition in the residential and small business markets in the Virginia Beach MSA has developed to a sufficient extent that the Commission should forebear from requiring Verizon to provide unbundled DS0 loops. Verizon's attempt to broaden the market to include wireless service is based on a fundamental error of economic analysis – namely, the confusion of a decline in demand with an increase in demand elasticity. Verizon has failed to provide any rigorous statistical analysis to back up its claim that wireless service constrains pricing in the wireline voice market. In light of these and other deficiencies in Verizon's application, the Commission should deny its application for forbearance.

[27] Since Verizon's UNE-loop-based competitors in the broadband market also rely on the loop to provide voice service, it is essential that there be no restriction on their use of the loop, regardless of whether the Commission believes UNE loops are essential for voice competition. The UNE-loop-based CLECs must be able to serve a customer's voice and data needs using the loop or they would face a significant cost penalty relative to Verizon, which can use the loop to provide any service.

I declare under penalty of perjury that the foregoing is true and correct. Executed this 21 day of April, 2009, at Washington, D.C.

Michael D. Pelcovits

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